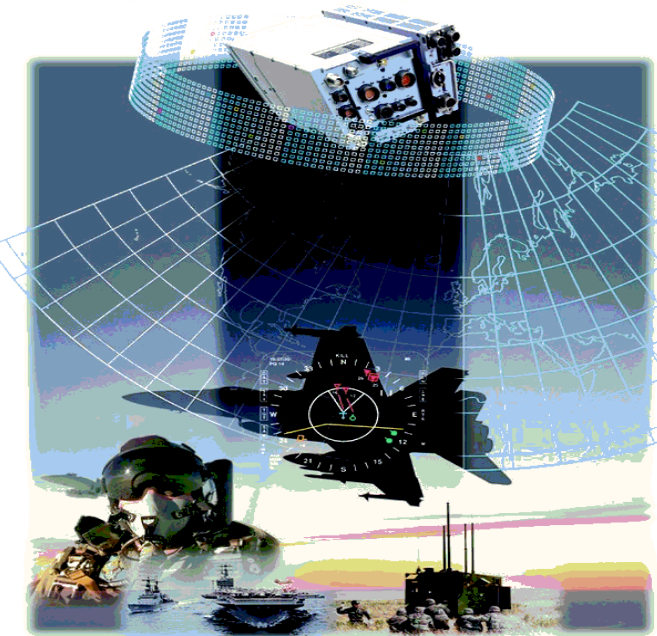


LINK-16 AND THE MULTIFUNCTIONAL INFORMATION DISTRIBUTION SYSTEM (MIDS)



SPAWAR



**PMW 101/159
TACTICAL LINKS
PROGRAM OFFICE**

WHAT IS LINK 16?

Link-16 is a bit-oriented Tactical Digital Information Link (TADIL J) message standard used by the Joint Tactical Information Distribution System (JTIDS) and the Multifunctional Information Distribution System (MIDS). Link-16 distributes tactical data and digital voice information at high rates among land, surface and airborne units with extensive jam resistance. Primary Link-16 functions include the exchange of friendly unit position and status data, the dissemination of tactical surveillance tracking data, and control/management of surface, subsurface and air engagements.

**Link-16 Provides US and Other
NATO/Allied Military Services
Fully Interoperable Capabilities**

	LINK-16	LINK-11	LINK-4A	LINK-4C
Surveillance/WC	Yes	Yes	No	No
Air Control	Yes	No	Yes	No
Fighter-to-Fighter	Yes	No	No	Yes
Secure Data	Yes	Yes	No	No
Extended LOS	Yes (Relay)	Yes (HF)	No	No
Secure Voice	Yes (2 Channels)	No	No	No
Jam Resistant	Yes	No	No	No
Positive ID	Yes	Limited	Limited	Limited
Navigation	Yes	No	No	No
Data Forwarding	Yes	No	No	No
Flexible Net	Yes	No	No	No

MIDS is the Third Generation Link-16 Terminal



LINK-16 TACTICAL DATA INFORMATION LINK

*Utilizes advancement in
technologies to develop an
enhanced digital command
and control system*

Benefits

- Improved situational awareness
- Improved weapons coordination
- Improved communications, navigation & identification
- Improved data accuracy & throughput
- Improved availability
- Jam resistance

WHAT IS MIDS?

MULTIFUNCTIONAL INFORMATION DISTRIBUTION SYSTEM (MIDS)

The MIDS Low Volume Terminal (LVT) is an internationally developed system that provides secure, jam-resistant, digital communications for voice and data. MIDS uses a Time Division Multiple Access (TDMA) protocol operating at L-band frequencies. It is the third generation of Link-16 terminals and interoperable with previous Link-16 terminals including JTIDS Class 1 and 2 and UK SHAR. It supports the positive identification and precise location of all participating platforms, greatly reducing the possibility of fratricide. MIDS LVT is currently being implemented based on a cooperative agreement with five participating nations. Interoperability with Link-16 users is guaranteed by software contracted by the participating governments.

Participating Countries and Contractors



France Thales



Germany EADS



Italy Marconi Mobile Defense Systems Group



Spain INDRA



United States Data Link Solutions (BAE/Rockwell Collins) / ViaSat

TACTICAL LINKS PROGRAM OFFICE

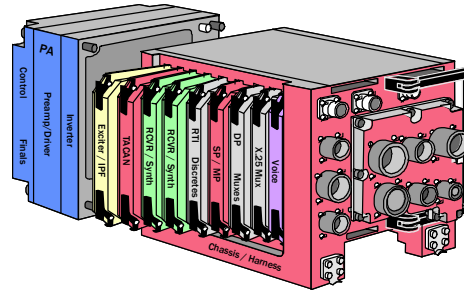
PMW 101/159

4201 Pacific Highway
San Diego, CA 92110-3215
Telephone: (619) 524-7795/7788

MIDS FAMILY OF TERMINALS

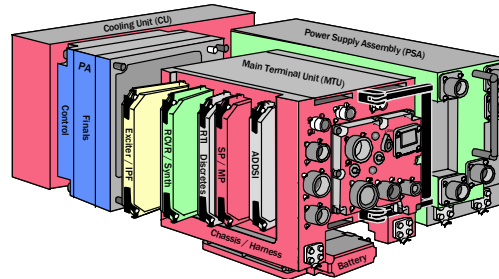
MIDS Low Volume Terminal (LVT)-1

- Fully Capable Terminal including Voice & TACAN
- MIL-STD 1553B/Ethernet/ ITU X.25 Interfaces
- Compliant with NATO Standard Agreement (STANAG) 4175



MIDS LVT-2

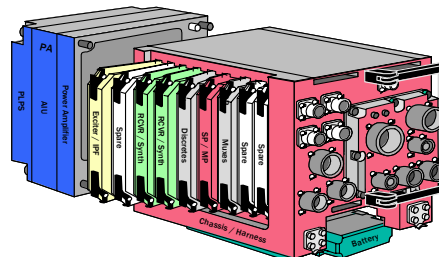
- ADDSI X.25 Interface for US Army Use
- No Voice or TACAN
- Unique Blower & Power Supply
- Spare Slots for Growth



MIDS LVT-3

(Fighter Data Link)

- MIL-STD 1553B Interface for USAF Applications
- No Voice or TACAN
- Spare Slots for Growth

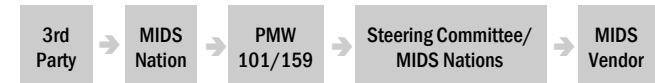


	MIDS LVT 1	MIDS LVT 2	MIDS LVT FDL
Multinetting	Yes	Yes	Yes
Data Rate (kbps)	Coded Max 238	Coded Max 238	Coded Max 238
AJ Projection	High	High	High
Power Output (W)	1,40,50,100,200	40,200	50
Relative Navigation	Yes	Yes	Yes
Relay	Yes	Yes	Yes
TACAN	Yes	No	No
Weight (lbs)	65	84	50
Volume (cu ft.)	0.6	1.3	0.6
H/W Reconfig.	Yes	Yes	Yes
SRU Interchange	Intended	Intended	Intended
Programmed SRU's	Yes	Yes	Yes
Voice	Yes	No	No
Input/Output	1553/Eve ITU X.25	X.24	1553B

MIDS 3RD PARTY SALES PROCESS

EQUIPMENT & SERVICES:

- Nation submits request through a MIDS participant nation or MIDS vendor
- Sale must be approved by the MIDS Participant nations
- PMW 101/159 will assist with the application and approval process
- Foreign Military Sales (FMS) cases are managed by PMW 101/159 & sole-sourced or competed among our production lines
- Commercial sales may be arranged directly with MIDS vendors
- "Total Package Approach" is implemented via FMS to ensure all life cycle requirements are met. Products and services offered include:
 - COMSEC
 - Configuration management
 - S/W upgrade program
 - Training



COMSEC:

- Establish MIDS embedded COMSEC Interoperability requirement with theater Commander-In-Chief (CINC)
- On approval, National Security Agency (NSA) executes bilateral agreement with 3rd party & opens COMSEC account
- COMSEC is by US Foreign Military Sales (FMS) only
- NSA delegates authority to Navy IPO / PMW 101/159 to open the case
- With COMSEC approved, terminals can be shipped to authorized National Distribution Authority of 3rd party

